

Restoration Project for a Degraded Urban Ecosystem in Gölbaşı Flats, Ankara. A Precarious Equilibrium

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Abstract

Gölbaşı Flats, a wetland located in Ankara (Turkey), has been neglected and mismanaged for decades. Surrounded by human activities encroaching on its area, it has received high amounts of pollution, and its ecosystem is now degraded. Works on a restoration project for the area started in 2023, aiming to radically transform the interactions between the wetland and the city: from an open-access natural resource used primarily as landfill to an area in which both the freshwater ecosystem and human activities can coexist. While this project is presented as an improvement from an ecological viewpoint, it nonetheless attracted criticism from environmentalists who claimed that it gave too much space to recreational activities, lacked a clear management plan and would still be detrimental to the ecosystem. This article points to the difficulty of finding a new equilibrium between the artificial and the natural in the densely populated capital city of Ankara, particularly in a middle-income country where post-materialist and environmentalist concerns are not yet dominant.

Gölbaşı Flats, una zona umida di Ankara (Turchia), è stata trascurata e mal gestita per decenni. Circondata da attività umane che interferiscono con gli ecosistemi, ha subito un notevole inquinamento e degrado. Nel 2023 sono stati avviati i lavori di riqualificazione dell'area con l'obiettivo di trasformare radicalmente le interazioni tra la zona umida e la città: da una risorsa naturale ad accesso libero utilizzata principalmente come discarica a un'area in cui l'ecosistema di acqua dolce e le attività umane possono coesistere. Sebbene questo progetto venga presentato come un miglioramento dal punto di vista ecologico, ha tuttavia attirato le critiche di ambientalisti che sostengono che dia troppo spazio alle attività ricreative e che non abbia un piano di gestione chiaro, risultando così dannoso per l'ecosistema. Questo articolo sottolinea la difficoltà di trovare un nuovo equilibrio tra artificiale e naturale ad Ankara, capitale densamente popolata di un paese a reddito medio, dove le preoccupazioni post-materialiste e ambientaliste non sono ancora dominanti.

Keywords

Pondscape, Urban wetland, Commons, People's garden, Freshwater ecosystem.

Stagno, Zona Umida urbana, Beni comuni, Giardino del popolo, Ecosistema d'acqua dolce.

The context

Gölbaşı Flats (*Gölbaşı Düzlüğü* in Turkish) is a 26 ha wetland best described as a network of thirty connected ponds located on the edge of the urbanised area of Ankara, and currently undergoing a vast restoration project. The flats are located in the middle of two large shallow lakes: Lake Mogan, located upstream and to the south of the flats, and Lake Eymir, downstream and to the north. Until February 2023 and the start of the works, the shores of the pondscape¹ were filled with trash: piled-up rubles from construction, old car parts and tires, and plastics, metals, glass, and all other sorts of debris. Indeed, despite being located in a *de jure* Special Protection Area (hereinafter SPA) under the jurisdiction of the central State, the wetland has been *de facto* left in a situation of open access and was surrounded until recently by a myriad of economic activities, such as a small industrial area and marble cutting workshops, storage warehouses for public works machinery, a slaughterhouse, and an animal shelter, all letting various wastes follow the slope of the terrain toward the ponds. As a consequence, the ecosystem is highly degraded, and its area has shrunk over the past decades under the anthropogenic pressure of anthropogenic activities, starting with the construction of the Ankara ring road in the 1990s that cut the pondscape from the downstream Lake Eymir. Although the ponds are

connected from a hydrologic viewpoint, they are separated by dense reeds reaching heights of several metres, making access virtually impossible to some of the ponds that are not on the outer edges of the pondscape. While this is a problem when it comes to taking samples and assessing the physicochemical, biological, or ecological status of the ponds, it is also a chance as there is limited human access to the core of the pondscape, a situation that the restoration project is planning to preserve.

Despite its poor ecological status, Gölbaşı Flats may be one of the most crucial ecosystems in all of Ankara for several reasons: first, the wetland is located on a tributary of the İncesu River, a permanent stream that flows from the peaks to the south of Ankara and joins the Ankara River in the centre of the city, which means it can have a significant impact on the ecosystem of that river, and the environmental status of Ankara's water regime at large; second, as an important network of ponds, it has the potential to provide a whole array of Nature's Contribution to People (hereinafter NCP), from biodiversity conservation to water quality and quantity regulation, as well as temperature regulation, among others; finally, in a city with little public green spaces, it is a precious environment that has been (partially) spared from soil artificialization, and has the potential of becoming a key natural area for the capital.

Urban green spaces designed with good ecological practices are essential for maintaining biodiversity in an increasingly urbanised world. This article addresses the complex challenge of finding a new equilibrium between the artificial and natural in the densely populated capital city of Ankara, particularly in an emerging country where politically and economically motivated decisions by the central state often overrule ecological or landscape architecture considerations. This case study highlights the broader implications for landscape architects globally, especially concerning the role of residual wetlands in urban environments, participatory design processes (and lack thereof), and the integration of landscape architecture in fast-growing cities of emerging countries.

If most people agree with the idea of giving more space to natural areas in cities, after decades of urban sprawl, the destruction of natural habitats has reached such a level that the very meaning of “nature” has been transformed, rendering difficult the emergence of a shared vision. The ideal concept of nature conservation – centred on the idea of pristine and untouched nature, free of human presence, interaction, or influence – emerged at the beginning of the 19th century, precisely as a reaction to industrialization and the ever-advancing exploitation of nature and its resources (Büscher and Fletcher, 2019). Today, the influence of mankind on its environment is such that even the most remote sections of the planet have been impacted (be it through ocean acidification, rising CO₂ concentrations, thinning of the ozone layer, etc.). In this context, the meaning of “natural” and the natural/artificial divide has shifted to the point where, in the urban context, the divide is essentially equivalent to that of the natural vs. built environment, whereby “natural areas” consist of any green spaces, parks, urban forests or lakes. The fluidity of the meaning of what is “natural” leads to debates over different definitions of nature and different visions of natural spaces in urban contexts. In

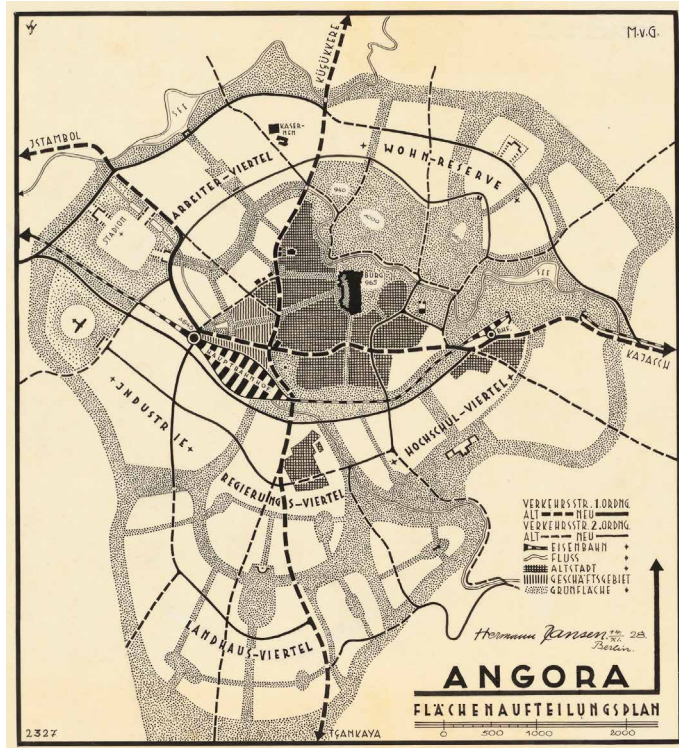
72 other words, new equilibria are contested and must

Fig. 1 - Jansen Plan (1927) – Winning design (by Hermann Jansen) for Ankara (formerly Angora), that proposed to build the new city around the old one and its citadel. Architecture Museum of the Technical University of Berlin. <https://doi.org/10.25645/52wj-m8gr>

be the result of a negotiation between different approaches.

This has been precisely the case for the Gölbaşı Flats in Ankara. The restoration and development project for the wetland won a design prize in “Sustainable Landscape” in 2019² and in spring 2023, works started with the intention of what could be interpreted as creating a new balance between nature and society, by eliminating illegal and polluting activities surrounding the wetland, and removing much of the accumulated debris and trash. Promoters of the projects envision it as offering a new equilibrium between conservation and exploitation of nature: turning the pondscape into a protected area and creating a recreational and educational area on its shores and edges (Aydın, 2019). However, opponents to the project (environmentalist and the Chamber of Landscape Architects) have criticised its lack of ambition and its preponderant focus on recreational aspects (Merkezi, 2023), to the point of questioning its ecological benefits.

This article showcases the challenges inherent in finding and implementing such a new equilibrium between “the natural and the artificial” in the urban context of a middle-income country, in which post-materialist and environmentalist sentiments are not shared by the governing coalition. The material and data of this case study have been collect-



ed over the past three years, but we start our exploration by placing it into its broader historical context, with a first section on the history of the modern urban development of Ankara. In the second section, we turn to an exploration of the wetland, its ecological value, and its relations with the surrounding area. The last section discusses the proposed new equilibrium, placing it in the context of the Anthropocene as well as the local political context, particularly the classification of the project as a “People’s Garden,” a contentious concept that was recently revived by the Turkish Government and that constitutes the core of its vision for urban design and politics. In conclusion, we turn to future challenges for the area regarding the property and management of the resource, a question that has been at the source of the deterioration of the wetland until now, and that will need to be addressed for this project to be sustainable over the long run.

Ankara: A City Planned and Unplanned

When Ankara became the capital of the newly founded Republic of Turkey in 1923, little was left of its antique origins and prosperous past. According to the census of 1924, the Anatolian city hosted about 35.000 inhabitants. In the early republican period, from the 1920s to the 1940s, as all administrations and foreign embassies were relocated from Istanbul, Ankara followed a somewhat chaotic development until the opening of an international competition for the design of the capital opened in 1927 and won by the Berlin architect Hermann Jansen. As instructed by the guidelines of the competition, the plan was meant for the development of the city over the next 50 years, with an expected population of 300.000 inhabitants (Pérouse, 2022). While the plan was only partially implemented (Jansen later demanded that his signature be withdrawn from the plan), it gave the core of the city its current organisation, but it

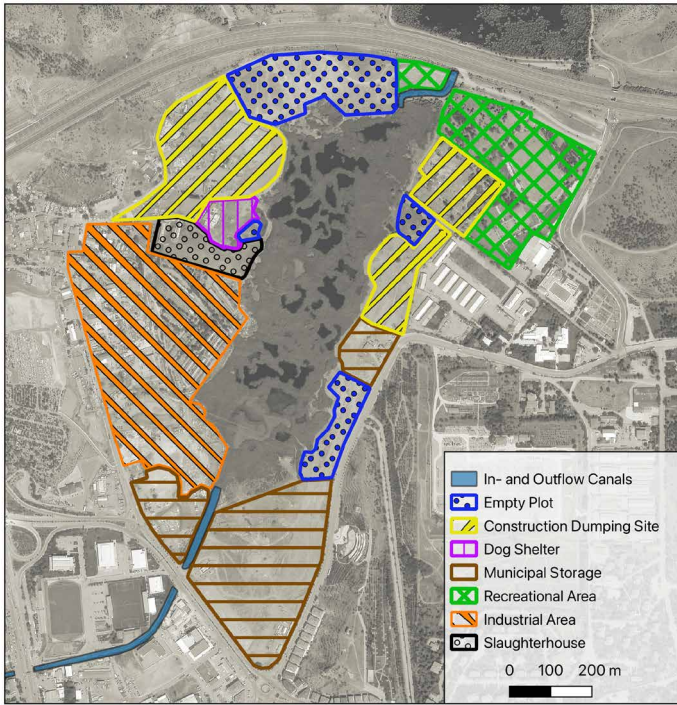


Fig. 2 - Map of Ankara's main rivers and water bodies, with the plan of the city as envisaged in the 1920s, its current extent, and the location of the site of our case study (authors' elaboration).

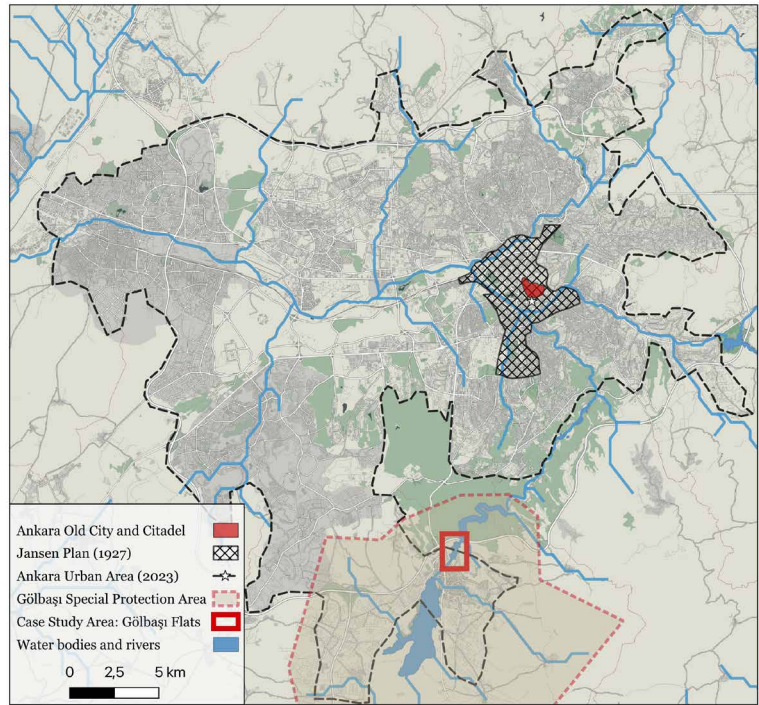
lacked vision in terms of population growth, a blind spot that will eventually lead to the unplanned development of the city.

After the 1950s, with the liberalisation of the economy and the rapid influx of rural population to the large cities of the country, squatter areas (*gecekondu* in Turkish³) developed at the edges of Ankara to the north, east, and south. Meanwhile, legal constructions still followed zoning according to the successive plans. To the end of planning followed the end of the very intention of planning. That turn occurred in the 1980s, with the *de facto* abandoning of the 1990 plan and the start of a construction boom on former farmland and grassland which would only accelerate throughout the 1990s and the 2000s (Yeşilbağ, 2020). This latest phase in the urban development of Ankara is characterised by unregulated growth resulting in an urban sprawl translating into a rapid loss of green spaces and a marked increase in concrete cover. The impact of the urban sprawl has also been

onward, all rivers located in the centre have been taken underground. The overall degradation of the network of rivers and wetlands is best illustrated by our case study in Gölbaşı Flats.

Ankara, with 5% of its area made of green spaces, is below the 7% average observed in European capital cities studied by the European Environment Agency (2022). However, in Ankara, the vast majority of this area consists of one single large green space, the Atatürk Forest Farm, designed and created in the early decades of the Republic, immediately to the West of the Jansen Plan. Today, neighbourhoods that are not located in its immediate vicinity are largely deprived of green spaces. The other large green space of Ankara, which is immediately visible on the map (the large green area located to the North of Gölbaşı Flats), is the campus of Middle East Technical University (METU), a public university that experimented with a large afforestation program, creating forests of firs on a land that used to be Anatolian steps. This vast green space is not accessible to Ankara residents

Fig. 3 - Map of land use on the edges of the Gölbaşı Flats pondscape as of January 2023 (before the start of the restoration project) (authors' elaboration).



but only to METU students, employees and alumni. Given the tenure in power of the Justice and Development Party (*Adalet ve Kalkınma Partisi* or *AKP*), and its quasi-hegemonic control from 2002 to 2013 (from the presidency and the parliament to the overwhelming majority of municipalities), Ankara, like most cities in Turkey, has been re-shaped in accordance with the city planning principles promoted by the party in power. Regarding green spaces, its central vision and policy has been that of People's Gardens (*Millet Bahçesi* in Turkish). They typically consist of urban public parks that are highly hygienic with little space left for natural elements except for grass and a few trees, some of them in pots. The key elements of these gardens consist of walking and running paths, and children's playgrounds (Kastas-Uzun and Senol, 2020; Senik and Uzun, 2021). They tend to have a high level of concrete cover and could be considered as one of the issues that symbolise the divide and antagonism that runs through Turkish society today. Sympathisers and voters of the AKP, showcase these newfan-

gled parks as an example of the government's attention to the needs of the citizens and the constant improvement of living conditions. Meanwhile, opponents point to the poor environmental performances of the parks (with virtually no NCP provided to the surrounding neighbourhoods), their questionable aesthetics and urbanistic aspects, as well as the underlying vision of nature they propose: hygienic, controlled, and entirely revisited to satisfy human needs.

The "Gölbaşı Flats" Pondscape

Gölbaşı Flats is part of Gölbaşı SPA (Fig. 2), a vast area under the jurisdiction of the central State, which aims to preserve the functioning of the ecosystem in spite of urbanisation (Ministry of the Environment and Urbanisation, 2020). Gölbaşı Flats is downstream of Lake Mogan and Upstream of Lake Eymir. It is a floodplain that consists of about 30 connected ponds separated by dense reeds. This pondscape is connected to the two lakes via two canals (one for inflow, the other for outflow), and is surrounded by 75



Fig. 4a - Drone shots of the Gölbaşı Flats ponds, April 2021. Orientation of the view: from the middle of the pondscape toward the North (photo courtesy: © Kaan Özgencil).

urban infrastructures: the Ankara ring road to the north, a main road to the south, and small industrial or artisanal activities to the east and west. Gölbaşı Flats is one of the few shallow permanent freshwater wetlands in central Anatolia – many wetlands in Anatolia are saline, and increasingly so due to the overuse of groundwater for human activities (Yılmaz *et al.*, 2021; Çolak *et al.*, 2022). Its origin is man-made: the area was in fact the southern part of Lake Eymir until the construction of the Ankara ring road which parted the waters of the lake into two, leading the shallower southern part to turn into its present state. Unlike upstream Lake Mogan, this wetland has not benefited from the State's resources to enact conservation and protection measures. Despite being equally located within the limits of Gölbaşı SPA, the Flats have been neglected and its shores have progressively been colonised by diverse economic activities (Fig. 3), which have encroached on the area or used it to dump wastes (Fig. 4). Another marginal human activity is that of occasional fishermen and drinkers who use the empty plots for recreational purposes.

A degraded yet precious ecosystem

Despite its state of neglect and degradation, the pondscape has been a provider of important NCPs for the city of Ankara.

First of all, Gölbaşı Flats hosts a high level of biodiversity, and the latest report of the SPA classifies the Flats as an “important bird breeding and shelter area” (Ministry of the Environment and Urbanization, 2020). Most notably, the White-Headed Duck (*Oxyura leucocephala*), a globally endangered and iconic waterfowl species, is likely to be breeding in the flats, and so is the Ferruginous Duck (*Aythya nyroca*, in “near threatened” status), the Great Bittern (*Botaurus stellaris*), Little Bittern (*Ixobrychus minutus*), Squacco Heron (*Ardeola ralloides*), and Red-crested Pochard (*Netta rufina*) among others. The area also hosts restricted endemic plant species such as *Centaurea tchihatcheffii*, which used to be widespread in the region. Additionally, the flats are a crucial buffer zone against hydro meteorological hazards whose frequency and intensity have been increasing due to climate change. The pondscape helps store the excess



Fig. 4b - Drone shots of the Gölbaşı Flats ponds, April 2021. Orientation of the view: from the western landfilled shores toward NNE (photo courtesy: © Kaan Özgencil).

water coming from the upstream Lake Mogan and the surrounding catchment area, thereby regulating the flow of water: retaining excess in periods of flood and providing an outflow in periods of drought. The flood mitigation capacity of the pondscape is a crucial NCP particularly considering its location, immediately upstream of Ankara's city centre. Furthermore, it regulates water quality, by acting as a filter for excessive nutrients (Nitrates and Phosphates), as well as pollutants, etc. that enter the water at the level of the Flats or upstream.

A “People’s Garden”?

In 2022, after decades of neglect, the central State launched a restoration project for the area⁴, planning to turn it into a “People’s Garden” (Millet Bahçesi). While People’s Gardens in Turkey are controversial and strongly associated with the urban policies of the current national government (Aydın, 2020), this project, in spite of its name, sharply contrasts with the usual green space policy of the AKP.

The People’s Garden of Gölbaşı Flats, indeed, as de-

signed almost entirely avoids the use of concrete and consists of two broad aspects: on the land surrounding the wetland, removal of polluting activities and accumulated trash, and transformation into a recreational and educational area; on the wetland itself, removal of pollution entry into the water or the surrounding area, and protection by regulating (essentially preventing) access. As it can be observed on the rendering of the project (Fig. 5 and bottom right of Fig. 6), human presence and activities are limited to the margins of the wetland and its surrounding areas. Three parking lots (with a total capacity of approximately 300 cars) are located to the South and West of the area, while the North-West of the park is devoted to education and recreation, showcasing agricultural activities. Meanwhile, the wetland itself is left relatively sheltered from human presence, although wooden piers are planned to allow visitors to venture above parts of the wetland and observe wildlife. Conservationists, biologists and bird watchers have warned that such piers may result in some birds entirely abandoning the area.



Although promoters of the project (i.e. the central State, that has full jurisdiction over the area) insist on its combined benefits for both ecological and recreational purposes, we examine whether this constitutes a new equilibrium that is likely to last. The equilibrium (old and new) is represented by the diagram of fig. 7, which underlines the challenges and difficulties in reaching a compromise between the different *functions of* (as opposed to “perspectives on”, as in the original IPBES version) Nature. The diagram, anthropocentric by design so as to better understand the motivations behind the different forms of interactions between human beings and nature, is made of three circles: conservation, recreation, and exploitation. By conservation, we mean the idea of protecting or restoring “natural” areas, implying minimal interaction between the protected area and society. This does not preclude that humans could not indirectly benefit from an array of NCPs (such as those provided

78 by Cölbashi Flats). Recreation implies direct interaction

and benefits from society, from strolling around, to picnicking or bird watching. Finally, exploitation refers to the material use of the resource, either by extraction (pumping water, fishing, etc.) or by the discharge of wastes, as in our case study until recently.

We see that the former situation (symbolised by the circle) was characterised by an emphasis on exploitation (mostly landfill and waste disposal), with marginal recreational activities (a few dozens of fishermen or drinkers taking advantage of the ponds every week). Meanwhile, the new proposed equilibrium would lead to a somewhat equivalent intensity between the functions of conservation and recreation, while leaving a marginal space for exploitation (such as the filtering of the occasional sewage overflow from upstream neighbourhoods).

A Precarious Equilibrium

Despite all this, the project was met with fierce opposition by a portion of civil society⁵ for two main rea-

Fig. 5 - Rendering of the project (perspective from the northern tip, looking SSW), with the restored wetland and infrastructures to welcome visitors (image courtesy: © Oktan Nalbantoğlu, ON Tasarım)

sons: first, the branding of the project, with the use of the term “People’s Garden,” clearly anchored it as being part of the current government’s broader policy, and turned it into a polarising issue. But beyond this, which is somewhat specific to Turkey, the central contentious issue lies with the very definition of the new equilibrium necessary to protect biodiversity in an urban environment.

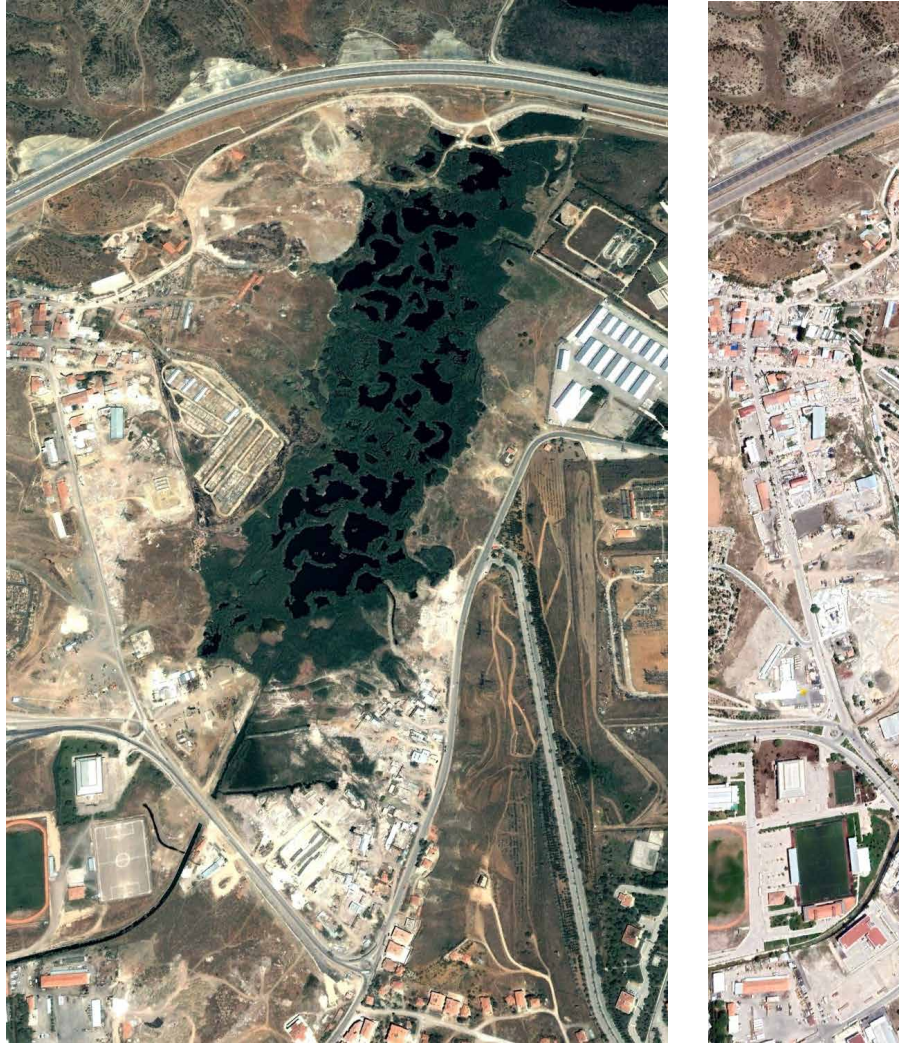
Defining such an equilibrium has been challenging in this case, because of the diverging and sometimes conflicting views on Nature and its functions, as discussed earlier. The balance between the three functions of Nature we identified will vary depending on the level of affluence of the society, its dominant values, and the way in which populations meet their needs: in many poor regions of the Global South, urban or peri-urban dwellers often rely on natural areas for the satisfaction of their needs (food, water, etc.). In such cases, the “exploitation” function would necessarily play a larger role.

Today, in Ankara, following a lawsuit filed by the chamber for landscape architects, in which the court ruled for the cancellation of the project due to insufficiencies in the environmental impact assessment, the implementation of the project is suspended, half-finished, itself in a state of precarious equilibrium: the cleaning of the wastes, the removal of illegal and polluting activities have been completed as well as the design of the main path surrounding the wetland and the planting of a few trees. However, the peers and observation decks, as well as the various infrastructures to welcome visitors, from cafes to educational facilities, have yet to be completed. This may be the best possible outcome: the wetland is restored and protected, and yet, it is closed to the public, inaccessible while all works are suspended. This situation, however, is unlikely to last, and the sustainability of this precarious equilibrium, whether it be the current one, or the one that was initially planned in the project will require careful management for it to be sustainable.

Today, although the wetland is under a restoration project (whose very ecological benefits are being contested), there is no clear maintenance plan nor guarantee of the medium or long-term continuation of its objectives: increasing biodiversity, learning about ponds, improving water management, mitigating climate change, etc. The question now for city or state managers and environmental activists alike, should be: how to ensure that this precious green area in Ankara be protected while providing NCP for residents or visitors? We would argue that in this case, as in many other cases of resource depletion, over-harvesting, or pollution, the new equilibrium can be sustainable by involving all stakeholders, from users and inhabitants to city and state administrators and make them participate in the decision-making process on the future of the pondscape.

So far, we have witnessed an entirely different situation: the municipality was not involved in the project, the central State being the sole manager of the area; 79

Fig. 6 - Satellite views of Gölbaşı Flats from July 2004 (6a left) and August 2019 (6b center), showing the shrinking of the wetland due to surrounding landfills. 6c right: satellite view of the same area in June 2023, after the completion of the first phase of the restoration project, with most surrounding activities cleared (Google Earth Pro, authors' elaboration).



no concertation was conducted, leaving citizens and residents to discover the project once it has already been approved; the project does not include any long-term management plan on the number of expected visitors or eventual regulation of crowds; finally, it does not include any careful study of the ecological status of the area, which would allow us to define what eventual maintenance need to be performed (removal of invasive species, for example). All these elements appear to support the opponents' critiques that the project will become just another poorly man-

aged and overcrowded People's Garden, in which case the ecosystem may not benefit from the project, and the new "equilibrium" would be tilted towards recreation as opposed its previous situation of exploitation, but still far away from the goal of conservation. As a conclusion, let us turn back to the Kunming-Montreal framework, which is the focus of this special issue. If we were to consider the People's Garden project as a mere first step in the right direction toward a new equilibrium (a point that is contested in Turkish civil society, as examined above), it would



first and foremost meet targets 1 and 7 (respectively reducing threats to biodiversity and limiting pollution) and start to address target 12 (inclusive and sustainable urbanisation). Beyond that, further steps would need to be taken, all based on the implementation of a long-term management plan, which would ensure at a minimum: the effective restoration of the wetland (target 2); the conservation of biodiversity (target 3); and the management of human-wildlife interactions (target 4). Such further improvements toward a new equilibrium will likely be the result of a protract-

ed process of negotiations between biodiversity conservation and human use on the one hand, and the diverging interests of different social groups on the other. The case of the People's Park of Gölbaşı Flats is an illustrative case of these dynamics and the challenges entailed in many biodiversity conservation projects.



Fig. 7 - Rendering of the project with the restored wetland and infrastructures to welcome visitors (image courtesy: © Oktan Nalbantoglu, ON Tasarım).

Author Contributions

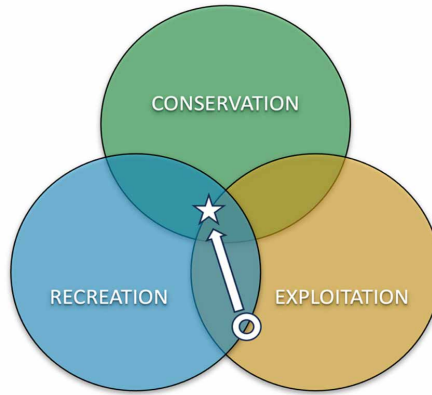
Antoine Dolcerocca was responsible for the original idea of the article, its writing, and the design of the figures. Deniz Basoglu oversaw the field research and data gathering visualised in Fig. 3 and edited the paper. Meryem Beklioglu led the Turkish leg of the Ponderful project and edited the paper. Jacques-Aristide Perrin commented on and edited the paper.

Notes

¹ The term denotes a particular type of wetland, which consists of a coherent network of ponds and their surrounding terrestrial habitats (Boothby, 1997; Cuenca-Cambronero et al., 2023).

² First prize in the “Sustainable Landscape” category in the “Best Sustainable Practices Competition” during the 4th International Sustainable Buildings Symposium (www.isbs2019.gazi.edu.tr), held on July 18-20, 2019 in Dallas, Texas. USA

Fig. 8 - Proposed Framework to illustrate the new equilibria, with the illustration of the expected change following the implementation of the project (authors' elaboration based on IPBES' Nature Futures Framework Venn Diagram).



³ Gecekondu literally means “built overnight”.

⁴ In Turkey, all wetlands and rivers are State property and are managed by the central State. The SPA gives the state oversight on development projects beyond the immediate shores of the wetland, but protection measures have so far been minimal and consist mostly of monitoring of water quality and some endemic species.

⁵ With the Chamber of Landscape Architects taking the lead in terms of legal actions.

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